



# Center for the Advancement of Transportation Safety

## 1998 Teen Driver Fatalities and Alcohol-Related Fatalities for NHTSA Region V

In 1998, there were 1,408 fatal crashes involving a driver under the age of 21 in the NHTSA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin). A total of 279 of these teen drivers (20%) had been drinking prior to the fatal crash. Moreover, there were 623 non-drinking teenage drivers who died as a result of their crash and along with them, 424 passengers died as well. For those teen drivers who had consumed alcohol prior to the fatal crash, 172 drivers and 114 passengers died.

Although Ohio had the highest overall number of fatal crashes for under 21-year-old drivers in 1998, the percentage of Ohio's alcohol-related fatal crashes involving under 21-year-old drivers was the lowest in the entire Region V (see Table 1). Illinois had the highest number of alcohol-related fatal crashes involving under 21-year-old drivers and the second highest overall number of fatal crashes for this age group, compared to the rest of the region. Minnesota's percentage for alcohol-related fatal crashes was the highest in the region for under 21-year-old drivers at 41 out of 143 fatal crashes, or 28.7% being alcohol-related.

	Alcohol		% of Fatal Crashes Involving Teen Drivers That Are Alc-Rel
	Related	Total	
Illinois	60	283	21.2%
Indiana	37	219	16.9%
Michigan	51	282	18.1%
Minnesota	41	143	28.7%
Ohio	52	314	16.6%
Wisconsin	38	167	22.8%

**Table 1. Percentage of Teen Driver Fatal Crashes That are Alcohol-Related - 1998**

	Driver Age at Time of Crash						Total Number by State
	0-15	16	17	18	19	20	
Illinois	15	35	61	53	55	64	283
Indiana	7	33	45	54	43	37	219
Michigan	13	43	53	53	63	57	282
Minnesota	7	23	11	37	34	31	143
Ohio	11	48	59	66	74	56	314
Wisconsin	8	36	31	34	27	31	167
Total Number by Age Group	61	218	260	297	296	276	1,408

**Table 2. Teenage Drivers Involved in Fatal Crashes by Age - 1998**

Indiana was the lowest in total overall number of alcohol-related fatal crashes for under 21-year-old drivers (n=37) and was below the median (n=251) for total number of fatal crashes involving under 21-year-old drivers.

Wisconsin had relatively low numbers compared to the rest of the states, but the percentage of alcohol-related compared to the total number of fatal crashes involving under 21-year-old drivers was second highest at 22.8% for the region for 1998.

### Teenage Driver Fatal Crashes

Table 2 represents the number of under 21-year-old drivers who were involved in a crash in which at least one person was fatally injured. The shading indicates the two highest values for each age group for each state. Thus, more 18- and 19-year-old drivers were involved in fatal crashes than any other age group, and the states of Ohio and Illinois had the highest number of fatal crashes involving under 21-year-old drivers at 314 and 283, respectively.

STATE	Driver Age at Time of Crash						Total Number by State
	0-15	16	17	18	19	20	
Illinois	1	3	8	10	19	19	60
Indiana	0	2	10	3	13	9	37
Michigan	2	1	6	13	15	14	51
Minnesota	1	3	1	7	14	15	41
Ohio	0	2	6	13	19	12	52
Wisconsin	0	1	8	10	7	12	38
Total Number by Age Group	4	12	39	56	87	81	279

**Table 3. Teenage Drivers Who Had Been Drinking That Were Involved in Fatal Crashes by Age - 1998**

### Alcohol-Related Fatal Crashes

Table 3 represents the number of under 21-year-old drivers who had been drinking and were involved in fatal crashes by age group for 1998. Again, the shading represents the two highest values for each state by age group. In alcohol-related crashes, the majority of crashes involved a 19 or 20-year-old driver and Illinois had the highest number (n=60) with Ohio and Michigan following at 52 and 51, respectively. Indiana had the lowest number overall for the region (n=37) but posted the highest number overall for 17-year-old drivers who were involved in a fatal crash after consuming alcohol (n=10).

Table 4a and 4b present two groups of information for each state. Table 4a provides the total number of teenage drivers who died as a result of a crash and the number of passengers who were killed as a result of a crash with a teenage driver. Table 4b provides the number of teenage drivers who had been drinking who died as a result of the crash and the number of passengers killed by a teenage driver who had been drinking. It is important to bear in mind that the numbers are exclusive of each other for each age group and only represent age group totals, not correlated values within an age group. For example, for Illinois, the 9 age 0-15-year-old drivers who were killed while driving did

Age	Illinois		Indiana		Michigan		Minnesota		Ohio		Wisconsin	
	Driver	Passenger	Driver	Passenger	Driver	Passenger	Driver	Passenger	Driver	Passenger	Driver	Passenger
0-15	9	14	5	14	3	16	3	11	5	26	7	11
16	16	17	11	7	16	12	7	8	24	16	12	7
17	22	11	23	9	25	11	5	7	20	15	16	7
18	21	9	27	8	22	8	15	7	35	11	19	9
19	25	4	22	8	18	7	19	9	35	9	13	7
20	24	4	25	1	21	5	14	8	24	3	15	3
> 20		19		14		19		8		17		8
Totals	117	78	113	61	105	78	63	58	143	97	82	52

**Table 4a. Teenage Drivers Who Killed Themselves and Passengers Killed By Teenage Drivers - 1998**

Age	Illinois		Indiana		Michigan		Minnesota		Ohio		Wisconsin	
	Driver	Passenger	Driver	Passenger	Driver	Passenger	Driver	Passenger	Driver	Passenger	Driver	Passenger
0-15	1	6	0	2	1	0	1	1	0	1	0	1
16	1	4	0	2	0	2	3	2	2	1	0	2
17	4	4	6	3	4	3	1	2	3	5	7	3
18	5	3	1	3	8	0	5	2	6	4	7	2
19	10	0	7	1	9	5	8	4	15	2	5	2
20	11	1	7	1	11	1	8	6	8	2	7	2
> 20		10		5		3		2		7		2
Totals	32	28	21	17	33	14	26	19	34	22	26	14

**Table 4b. Teenage Drivers Who Had Been Drinking and Killed Themselves and Passengers Killed By Teenage Drivers Who Had Been Drinking - 1998**

not necessarily kill the 14 age 0-15-year-old passengers who were killed by a teenage driver. The shading indicates the two highest values with driver/passenger classification for each state.

For the non-drinking teen drivers who died as a result of their crash, the majority of them were between the ages of 18 and 20, with the exception of Michigan and Wisconsin, whose teen driver fatalities primarily involved drivers age 17 and 18. For young drivers who had consumed alcohol prior to a fatal crash, the majority of them were also between 18 and 20 years of age for every state. In both the non-drinking and drinking teen driver fatalities, the teenage drivers killed themselves more often than they killed teen passengers for 1998. The tables also include the number of passengers older than age 20 who were fatally injured by a crash involving a teen driver. Every state had drivers under the age of 16 who died in a fatal crash, with the range being from 3 for Michigan and Minnesota to 9 for Illinois. Furthermore, 3 of these 0-15-year-old drivers had consumed alcohol prior to their fatal crash.

## Comparison Between Non-Drinking Drivers and Drinking Drivers

A closer look at the numbers reveals that although Minnesota had the fewest teen drivers (89) who died in a fatal crash for 1998, 26 of those teen drivers (29.2%) had consumed alcohol prior to their crash. Further, Ohio recorded the highest number for both categories with 143 non-drinking teen drivers and 34 who had consumed alcohol prior to being killed in a crash. Indiana had the lowest number (21) and percentage (15.7%) of drinking teen driver fatalities.

Table 5 examines the percentage of teen drivers, by age, who consumed alcohol prior to their crash to determine the percentage who died as a result, versus those who were involved in a fatal crash in which someone else died (by age), not the teen driver. The percentage of teen drivers who had consumed alcohol and died as a result of a crash is over 50% for every state in the region. Illinois had the lowest percentage at 53.3%, while Wisconsin had the highest with 68.4%. As stated earlier, a

	Age of Driver						Total	% Killed Self in Alc-Rel Crash
	0-15	16	17	18	19	20		
<b>Illinois-Total Alc-Rel Fatal Crash</b>	1	3	8	10	19	19	<b>60</b>	
<b>Illinois-Alc-Rel Killed Self</b>	1	1	4	5	10	11	<b>32</b>	<b>53.3%</b>
<b>Illinois-Alc-Rel Killed Passenger</b>	0	2	4	5	9	8	<b>28</b>	
<b>Indiana-Total Alc-Rel Fatal Crash</b>	0	2	10	3	13	9	<b>37</b>	
<b>Indiana-Alc-Rel Killed Self</b>	0	0	6	1	7	7	<b>21</b>	<b>56.8%</b>
<b>Indiana-Alc-Rel Killed Passenger</b>	0	2	4	2	6	2	<b>16</b>	
<b>Michigan-Total Alc-Rel Fatal Crash</b>	2	1	6	13	15	14	<b>51</b>	
<b>Michigan-Alc-Rel Killed Self</b>	1	0	4	8	9	11	<b>33</b>	<b>64.7%</b>
<b>Michigan-Alc-Rel Killed Passenger</b>	1	1	2	5	6	3	<b>18</b>	
<b>Minnesota-Total Alc-Rel Fatal Crash</b>	1	3	1	7	14	15	<b>41</b>	
<b>Minnesota-Alc-Rel Killed Self</b>	1	3	1	5	8	8	<b>26</b>	<b>63.4%</b>
<b>Minnesota-Alc-Rel Killed Passenger</b>	0	0	0	2	6	7	<b>15</b>	
<b>Ohio-Total Alc-Rel Fatal Crash</b>	0	2	6	13	19	12	<b>52</b>	
<b>Ohio-Alc-Rel Killed Self</b>	0	2	3	6	15	8	<b>34</b>	<b>65.4%</b>
<b>Ohio-Alc-Rel Killed Passenger</b>	0	0	3	7	4	4	<b>18</b>	
<b>Wisconsin-Total Alc-Rel Fatal Crash</b>	0	1	8	10	7	12	<b>38</b>	
<b>Wisconsin-Alc-Rel Killed Self</b>	0	0	7	7	5	7	<b>26</b>	<b>68.4%</b>
<b>Wisconsin-Alc-Rel Killed Passenger</b>	0	1	1	3	2	5	<b>12</b>	
<b>Total Alc-Rel Fatal Crash</b> indicates the number of teens by age who had consumed alcohol prior to being involved in a crash in which someone died. <b>Alc-Rel Killed Self</b> indicates the number of teens by age who had consumed alcohol prior to being involved in a crash in which they died. <b>Alc-Rel Killed Passenger</b> indicates the number of teens by age who had consumed alcohol prior to being involved in a crash in which someone other than the driver died.								

**Table 5. Teen Alcohol-Related Fatal Crashes: The Number of Teens Who Had Consumed Alcohol and Died in a Fatal Crash Compared to the Number of Teens Who Had Consumed Alcohol Prior to Being in a Crash in Which Someone Else Died**

comparison of the driver ages indicates that the 18-20-year-old drivers are more prevalently involved in a fatal crash after having consumed alcohol than drivers 17 years of age and under. Moreover, the number of teen drivers who died as a result of a crash after consuming alcohol is significantly higher for drivers 18-20. For these drivers, the percentages ranged from Indiana being lowest with 71.4%, or 15 of 21 drivers being 18-20 years of age, to Ohio with the highest having 85.3%, or 29 of 34 drivers being 18-20 years of age. The remaining states were all within the range of 73% to 85% of all alcohol-related fatal crashes involving a driver age 18-20 that died as a result of the crash. For those drivers who were 17 years of age and younger and had consumed alcohol prior to being involved in a fatal crash in which they died, Wisconsin had the highest number with 7, followed by Indiana and Illinois with 6 each.

Teens Involved in Fatal Crashes with Previous DWI

Chart 1 illustrates the number of teenage drivers that had been drinking and were involved in a fatal crash and had at least one prior DWI charge by state. Michigan had the highest number overall at 7 compared to Illinois with none reported. The significance of this data is that all of the 22 drivers involved were under the legal drinking age and 3 of them had had 2 or more previous DWI's prior to this crash.

Chart 2 shows the number of teenage drivers who had not been drinking prior to this fatal crash, but had a record of previous DWI for the given state. Ohio had the highest number by far with 15 teen drivers, with 11 of those drivers being between 19 and 20 years of age. However, one of Ohio's 20-year-old drivers had had at least 2 or more previous DWI's recorded. Illinois, as above, had no involved teen drivers with a record of prior DWI.

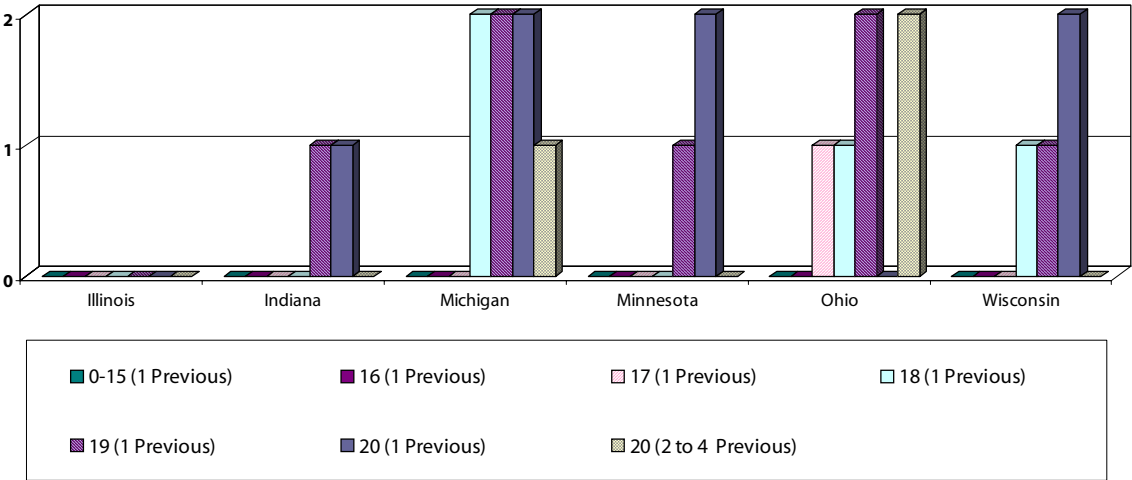


Chart 1. Teenage Drivers Who Had Been Drinking and Were Involved in a Fatal Crash by Previous DWI - 1998

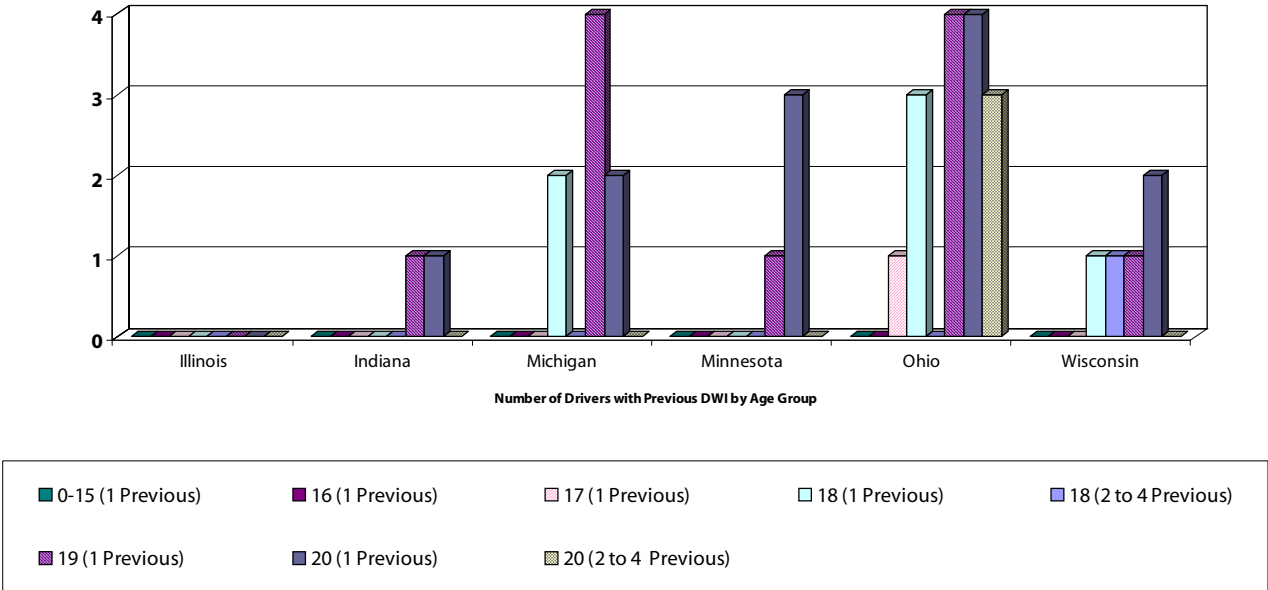


Chart 2. Total Number of Fatal Crashes and Alcohol-Related Crashes for 0-20 Age Group by State, with Regional Medians for 1998

### Fatality Rates Compared to State Population

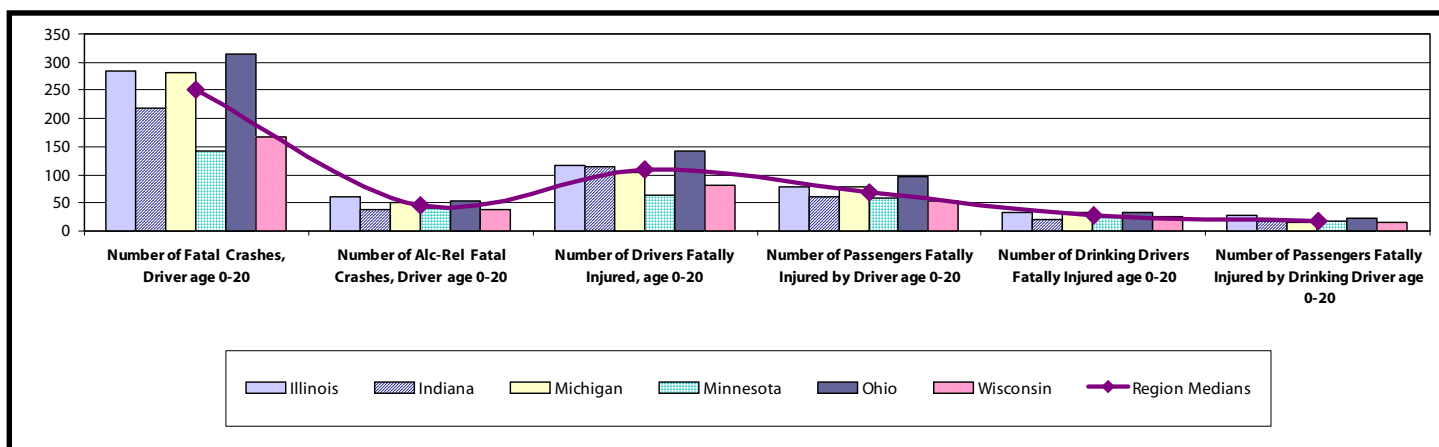
The data for total number of fatal crashes and alcohol-related crashes presents a very different perspective when normalized to those persons age 0-20 for each state. As can be seen in Table 6, Ohio had the highest total number of fatal crashes for drivers 0-20 years of age. Nevertheless, when the total number of fatal crashes is compared to the 0-20 population per 100,000 persons, Indiana had the highest rate of crashes (12.3 fatal crashes per 100,000 persons 0-20) than any of the other states. In other words, this measurement indicates that for every 100,000 persons age 0-20 in Indiana for 1998, 123 of them were a driver in a fatal crash. In contrast, Illinois had the lowest crash rate for the 0-20 age group per 100,000 persons at 7.66. For fatal crashes involving drivers who had been drinking alcohol prior to the crash, Minnesota had the highest rate per 100,000 persons at 2.79. Again, based only upon the raw data, Ohio had the second highest

number of alcohol-related fatal crashes involving a driver under 21 years of age (52). Still, when the numbers are standardized against the 1998 estimated state populations for 0-20 year olds, Ohio actually had the lowest rate overall at 1.56 for every 100,000 persons. Of significance is the fact that of the six different types of fatal crash statistics shown for each state, Illinois had the *lowest* per 100,000 persons for four of them. Moreover, for the remaining two statistics, their rates per 100,000 persons were the second lowest. Conversely, when Minnesota's data was normalized for population, it measured the *highest* in four of the six statistics analyzed.

Also included in the table are the regional median fatal crash rates per 100,000 persons for each category across all six states. Thus, the regional median for the total number of fatal crashes involving a driver under 21 years of age was 9.6 fatal crashes per 100,000 persons age 0-20 for 1998. Chart 3 provides a state-by-

							Regional Medians
	Illinois	Indiana	Michigan	Minnesota	Ohio	Wisconsin	
Number of Fatal Crashes, Driver age 0-20	283	219	282	143	314	167	251
per 100,000 persons	7.66	12.30	9.47	9.74	9.43	10.53	9.61
Number of Alc-Rel Fatal Crashes, Driver age 0-20	60	37	51	41	52	38	46
per 100,000 persons	1.62	2.08	1.71	2.79	1.56	2.40	1.90
Number of Drivers Fatally Injured, age 0-20	117	113	105	63	143	82	109
per 100,000 persons	3.17	6.35	3.53	4.29	4.30	5.17	4.29
Number of Passengers Fatally Injured by Driver, age 0-20	78	61	78	58	97	52	70
per 100,000 persons	2.11	3.43	2.62	3.95	2.91	3.28	3.10
Number of Drinking Drivers Fatally Injured, age 0-20	32	21	33	26	34	26	29
per 100,000 persons	0.87	1.18	1.11	1.77	1.02	1.64	1.14
Number of Passengers Fatally Injured by Drinking Driver, age 0-20	28	17	14	19	22	14	18
per 100,000 persons	0.76	0.95	0.47	1.29	0.66	0.88	0.82
<div><div></div> : highest rate</div> <div><div></div> : lowest rate</div>							

**Table 6. 1998 Fatal Crash Rates per 100,000 Persons by State**



**Chart 3. Total Number of Fatal Crashes and Alcohol-Related Crashes for 0-20 Age Group by State, with Regional Medians for 1998**

state comparison of the number of driver fatalities and fatal crashes for the 0-20 age group with the regional medians displayed as a reference.

### Overview of Licensing Practices and BAC Laws

With the exception of Minnesota, all six states in the region have a three-tiered system that restricts the driving privileges of young drivers. Currently, Minnesota does not require its teen drivers to go through an intermediate stage whereby they are restricted from driving certain nighttime hours as well as the number of passengers they can transport without adult supervision. In reviewing the effective dates of the graduated licensing laws throughout the region, it was noted that Michigan's law began on April 1, 1997, Illinois on January 1, 1998, and Wisconsin's law will not be in full force until July 1, 2000. Indiana's, Minnesota's and Ohio's all became effective January 1, 1999. Taking the earlier start dates of Michigan and Illinois into consideration, it would appear that the laws have had some impact in that the majority of 16 and 17-year-old drivers tend to be at the lower end in the numbers of fatal crashes. In fact, both Illinois and Michigan's 16-year-old drivers had the lowest involvement in fatal crashes of any other age group for those states. However, some of these same measures also apply to the other states—whose legislation just recently went into effect. Nonetheless, it is a promising course that should be monitored for future trends.

All states in the region have a 0.10 *per se* law with the exception of Illinois, which has 0.08. However, for the under 21 group, the zero-tolerance law is a necessary tool in combating underage drinking and driving. As of June 1998, all states and the District of Columbia had enacted zero tolerance legislation for drivers under the age of 21 that established a BAC limit of 0.02 or lower. Furthermore, all states have a minimum drinking age law of 21 years of age.

### Focus on Indiana

In 1998, for NHTSA's Region V, an average of 1 driver out of every 5 involved in a fatal crash in which the driver was under the age of 21, the driver had consumed alcohol prior to the crash. The state of Indiana, as presented in the tables and charts, had driver statistics comparable to the regional medians or means overall, but carefully focused attention needs to continue to reduce the number and rate of under age 21 drivers' involvement in fatal crashes. This need is clearly indicated by the fact that for every 100,000 persons age 0-20, 12 were a driver in a fatal crash. Additionally, 6 out of every 100,000 of Indiana's citizens age 0-20 were a fatally injured driver in 1998. In the case of the alcohol-related fatal crashes, 21 involved an underage driver who died as a result of the crash, and the remaining 16 were innocent victims of an underage drunk driver. Of even greater significance is the fact that 2 of these underage drunk drivers had one prior DWI on their records prior to the alcohol-related fatal crash.

Of major importance is the need to examine the programs of those states whose rates are markedly lower than Indiana's to determine how those programs can be implemented in Indiana. Specifically, where Indiana represented the highest rate for fatal crashes and drivers fatally injured for 0-20 years of age, Illinois had rates of nearly one-half as high, based upon population. Further, programs that target underage alcohol consumption, as well as drinking and driving, need to be re-evaluated—and possibly updated—to increase the pre-teen and early teens' awareness of the dangers of alcohol and driving drunk so that the practice is never instituted. This would also include an evaluation and rigid enforcement of legal sentences, driver's license revocations, and penalties. Finally, a process needs to be established by which the graduated license program can be routinely monitored to determine its success/failure rate compared to the other successful programs throughout Region V, and adjust its requirements as indicated by the reviews.